Allium dictuon St. John

Blue Mountain onion
Liliaceae (Lily Family)

Status: State Threatened, USFWS Species of Concern
Rank: G2S2

General Description: Perennial which stands about 10 inches tall. Each bulb has one flowering stem and 2 slender, flattened to channeled, leaves which are about 4 inches long. The inflorescence is a many-flowered, densely clustered raceme that has the appearance of an umbel. At the base of the flower cluster are 2 slender-tipped bracts that are broader but shorter than the leaves. The perianth segments are lanceolate, attenuate, finely serrulate-denticulate, bright pink in color, sometimes with the base being somewhat paler or even whitish.

Identification Tips: This species can be distinguished from *A. acuminatum* by its more numerously flowered inflorescence and perianth segments that are nearly equal in length and serrulate-denticulate with involute margins.

Phenology: There is significant variation in the flowering time of *A. dictuon* from year to year, undoubtedly related to the amount of snowpack and the time of snowmelt. It is generally identifiable in June and July.

Range: Local endemic; restricted to a small area in the WA portion of the Wenaha-Tucannon Wilderness Area, Blue Mountains, in extreme southeastern WA. It occurs in the Blue Mountain physiographic province.

Habitat: Occurs at middle to upper elevations (4200-5200 feet), generally on rather steep slopes (0-55 degrees) with an unstable substrate. Soil substrates are derived from surface basalts and interflow material. The surface is dominated by loose gravel. Currently known from an area described as bluebunch wheatgrass grassland within the Grand Fir Zone (Franklin and Dyrness 1973). Known occurrences have the following associated species: bluebunch wheatgrass (*Agropyron spicatum*), wormleaf stonecrop (*Sedum stenopetalum*), Gray's desertparsley (*Lomatium grayi*), whiteleaf scorpionweed (*Phacelia hastata*), hotrock beardtongue (*Penstemon deustus* var. *deustus*) and sulfur wild buckwheat (*Eriogonum umbellatum*).

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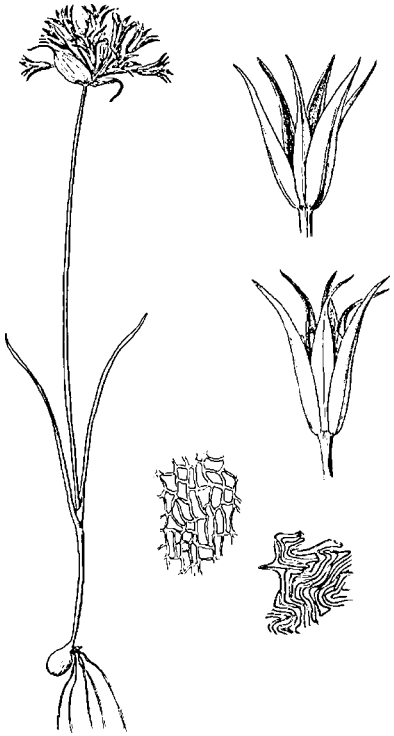
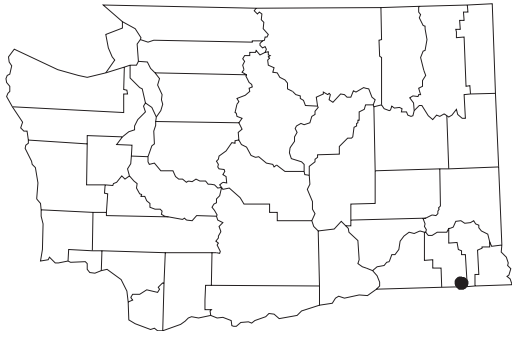


Known distribution of
Allium dictuon
in Washington



● Current (1980+)
○ Historic (older than 1980)

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William Snow

Ed Alverson

1997 Produced as part of a cooperative project between the Washington Department of Natural Resources, Washington Natural Heritage Program, and the U.S.D.I. Bureau of Land Management.
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Ecology: The slopes on which *Allium dictuon* is found are somewhat unstable and subject to erosion from surface runoff. These disturbances may act to limit the amount of competing vegetation which can get established on the slopes. Typically, *A. dictuon* occurs on open slopes with less than 5% vegetative cover. The species' response to fire is unknown. The microsites generally support low fuel levels, so fire intensity would generally be expected to be low.

State Status Comments: The primary factors are the extremely small range of the species and the low number of known populations.

Inventory Needs: Additional inventory in the Wenaha-Tucannon Wilderness Area should be conducted. There would appear to be a lot of suitable habitat available. The terrain is rugged and relatively inaccessible, so inventory to-date has been somewhat limited.

Threats and Management Concerns: Definite threats have not been identified. However, the extremely small range of this species is a major concern. Any disturbance to the extremely localized habitat would constitute a major threat, such as large elk populations. Hiking trails in the vicinity could serve as dispersal corridors for non-native species.

References:

Hitchcock, C. L., A. Cronquist, M. Ownbey, and J.W. Thompson. 1969. *Vascular Plants of the Pacific Northwest, Part 1: Vascular Cryptogams, Gymnosperms, and Monocotyledons.* University of Washington Press, Seattle. 914 pp.

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